



# Carbon Pollution from Transportation

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## Transportation and Climate Change

Burning fossil fuels like gasoline and diesel releases carbon dioxide, a greenhouse gas, into the atmosphere. The buildup of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases like methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and hydrofluorocarbons (HFCs) is causing the Earth's atmosphere to warm, resulting in changes to the climate we are already starting to see today.

Twenty-six percent of U.S. greenhouse gas (GHG) emissions is from transportation. Transportation is the second leading source of GHG emissions in the United States, just behind electricity. Between 1990 and 2014, GHG emissions in the transportation sector increased more in absolute terms than any other sector.

Learn more:

- Global emissions by economic sector
  - Fast facts on transportation greenhouse gas emissions
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## EPA Programs to Reduce Carbon Pollution from Transportation

EPA is addressing climate change by taking the following actions to reduce GHG emissions from the transportation sector. Many of these programs have benefits beyond cutting carbon. For example, decreasing fuel consumption can reduce our dependence on foreign oil and save consumers money at the pump.

### Setting GHG Emissions Standards for Cars and Trucks

EPA and DOT issued a joint rule-making that set GHG emissions and fuel economy standards for the largest sources of greenhouse gases from transportation, including cars, light trucks, and heavy-duty trucks.

Light-duty GHG regulations for passenger vehicles and trucks are projected to:

- Cut 6 billion metric tons of GHG emissions over the lifetimes of the vehicles sold in model years 2012-2025 and allowing manufacturers flexibility in meeting the standards;

- Nearly double the fuel efficiency while protecting consumer choice; and
- Reduce America's dependence on oil and provide significant savings for consumers at the pump.

Heavy-duty GHG regulations are projected to:

- Reduce CO<sub>2</sub> emissions by about 270 million metric tons over the life of vehicles built under the program, saving about 530 million barrels of oil; and
- The proposed "Phase 2" program includes standards that would further reduce GHG emissions and improve the fuel efficiency of medium and heavy-duty trucks.

Learn more:

- Regulations for GHG emissions from passenger cars & trucks (light-duty)
  - Regulations for GHG emissions from commercial trucks & buses (heavy-duty)
  - GHG emission standards for light-duty vehicles: Manufacturer Performance Report
  - Analyses and reports for setting GHG emissions standards for cars and trucks
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## Increasing the Use of Renewable Fuels

Congress created the Renewable Fuel Standard program in an effort to reduce greenhouse gas emissions and expand the nation's renewable fuels sector while reducing reliance on imported oil. Renewable fuels are produced from plants, crops and other biomass, and can reduce greenhouse gas emissions when compared to burning the fossil fuels they replace.

Learn more:

- Renewable Fuel Standard Program
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## Taking First Steps to Set a Greenhouse Gas Standards for Aircraft

EPA along with the Federal Aviation Agency at the United Nations' International Civil Aviation Organization have developed international carbon dioxide emissions standards for aircraft. EPA is also now working through the process of potentially setting domestic regulations under the Clean Air Act that address GHG emissions from certain classes of engines used in aircraft.

Learn more:

- Regulations for GHG emissions from aircraft
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## Greening the Federal Fleet

The 2007 Energy Independence and Security Act requires federal agencies to only acquire cars, light trucks, or medium-duty passenger vehicles that are low greenhouse gas emitting. Each year, EPA evaluates the greenhouse gas emissions performance of the fleet to determine which vehicles in each class emit less harmful greenhouse gases. The law requires federal agencies to purchase these high performing vehicles. Over time this will result in a greener federal fleet.

Learn more:

- Federal fleets

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## Reducing Greenhouse Gas Emissions Associated with Moving Goods

SmartWay helps the freight transportation sector improve supply chain efficiency, reducing greenhouse gases and saving fuel costs for companies who participate. Through SmartWay, EPA and its partners are making significant gains in the efficiency of how our nation moves goods, helping address air quality challenges, improving public health and reducing freight's contribution to climate change.

Learn more:

- SmartWay

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The EPA Fuel Economy Label Through the years...

1974

1978

1986

1995

2008

2013

The most ever featured on the EPA's Fuel Economy Label

Click to view larger image.

## Informing Consumers Information on Fuel Economy and Advanced Technology Cars

Since the mid-1970s EPA has required automakers to display a label on new cars and light trucks with information on vehicles' fuel economy and fuel costs. Labels on today's cars also include ratings on greenhouse gas and smog-forming pollutants. EPA provides online resources, such as the Green Vehicle Guide and the joint EPA-DOE website [fuelconomy.gov](http://fuelconomy.gov), to help consumers identify vehicles that can save them money at the pump and reduce their transportation-related emissions.

EPA's SmartWay light duty program goes further and identifies the top performing vehicles in terms of fuel economy and emissions to assist consumers in making an environmentally friendly purchase.

Learn more:

- [Green Vehicle Guide](#)
  - [Fuelconomy.gov](http://fuelconomy.gov)
  - [Consider a SmartWay vehicle](#)
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## Green Racing

Green Racing uses motorsports competition to promote the rapid development of cleaner, fuel efficient vehicles technologies that can be used in consumer vehicles. Green Racing is sponsored by the U.S. Environmental Agency, U.S. Department of Energy, and Society of Automotive Engineers (SAE) International, and its activities are guided by SAE Green Racing Protocols. Green Racing challenges the racing industry to use alternative technologies and clean fuels to gain the highest performance with the lowest environmental impact. The transfer of these innovations "*From the Raceway to the Driveway*" is the primary objective of Green Racing.

Learn more:

- [Green racing](#)
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## State and Local Transportation Resources Center

For information on emission reduction strategies, national policies and regulations, incentive-based and voluntary programs, funding sources, calculators, transportation conformity, and other types of assistance to help states and local areas achieve their air quality and transportation objectives.

Learn more:

- [State and Local Transportation Resources](#)
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## The Road Ahead

While transportation continues to contribute a large percentage of U.S. emissions, there are many opportunities for the sector to deliver greenhouse gas reductions. Low-carbon fuels, new and improved vehicle technologies, strategies to reduce the number of vehicle miles traveled, and operating vehicles more efficiently are all approaches to reducing greenhouse gases from transportation.

Learn more:

- [Routes to a lower GHG transportation future](#)

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